SPIKE™ Prime

7

Projects

21 LESSON PLANS

Student Book

LEGO education

spike™
Prime

Expansion Set

Ages 10+
45681

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SPIKE™ Prime 7

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Weight Scale

Student Book - SPIKE Prime Project

Can you create a device to measure the weight and mass of different objects?

A weighing scale traditionally consisting of two plates or bowls suspended at equal distances from a fulcrum is a used to measure weight or mass.
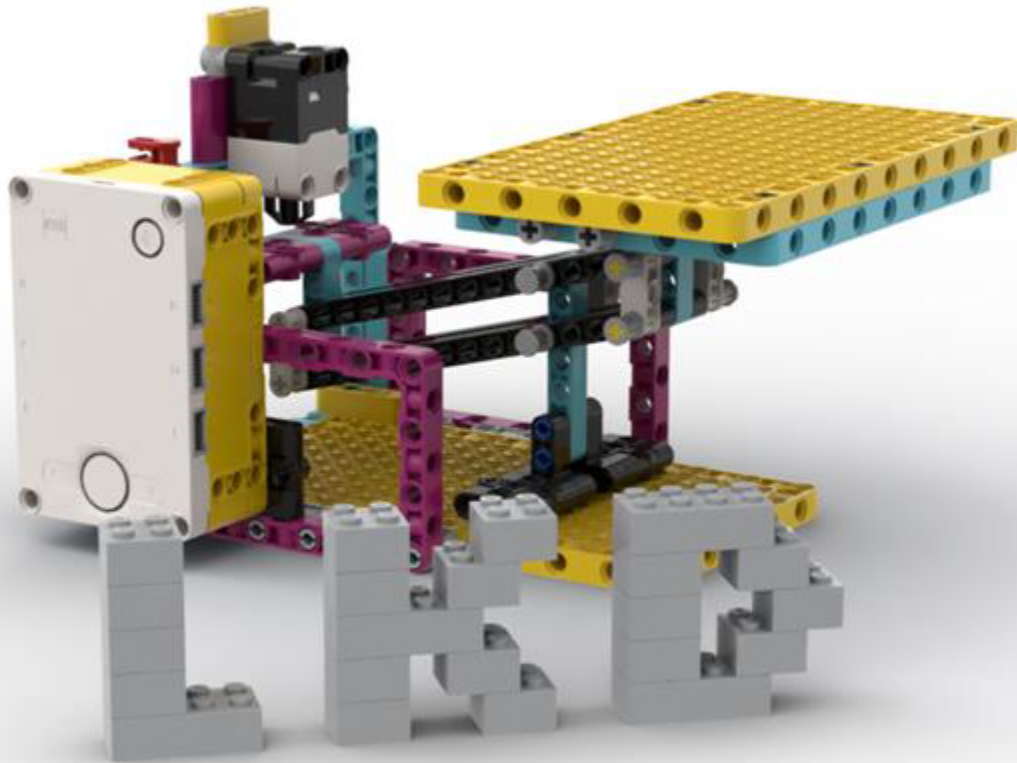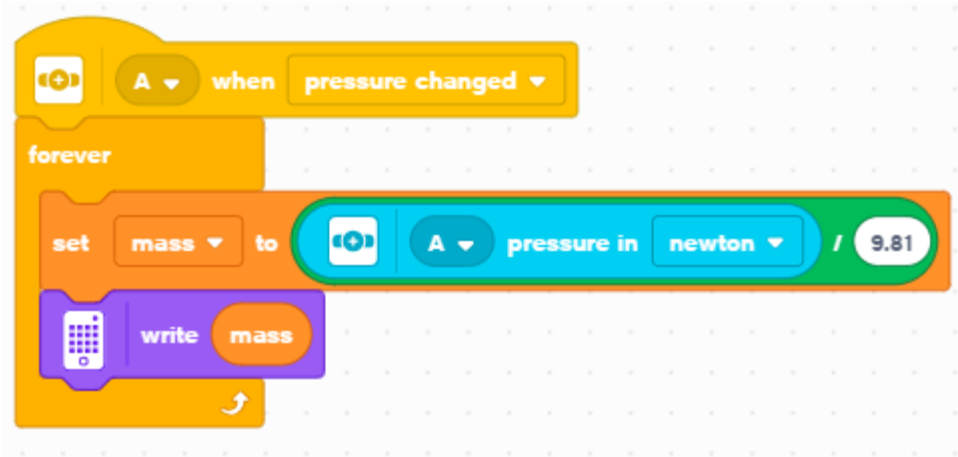

Watch the video to see what your bot is about to do.

Build your Weight Scale.

This weight scale measures mass in kilograms or grams.
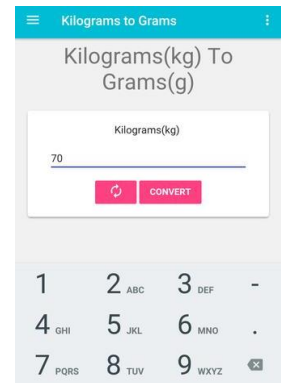
Let's try this code first.

This program converts the force measured by the force sensor into mass based on this formula:

Force = Mass * Acceleration of Gravity (g)
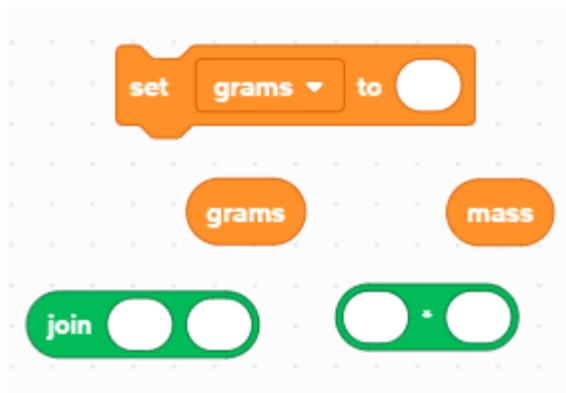
Now display mass in grams.

Convert the mass from kilograms to grams.

1 kilogram (kg) is equal to 1000 grams (g).

What is the heaviest mass calculated by the scale?

(HINTS)

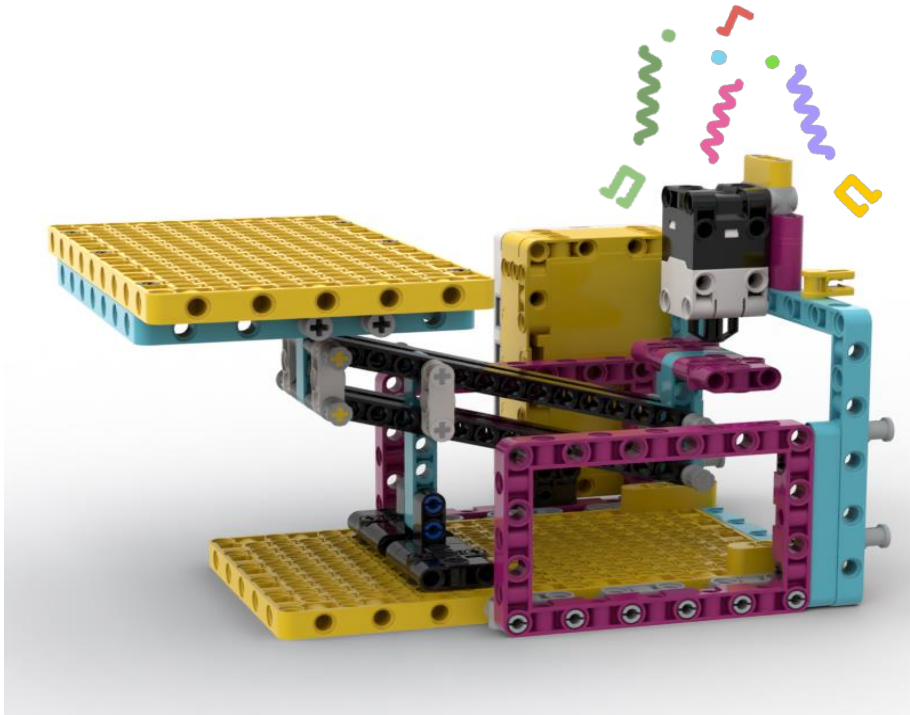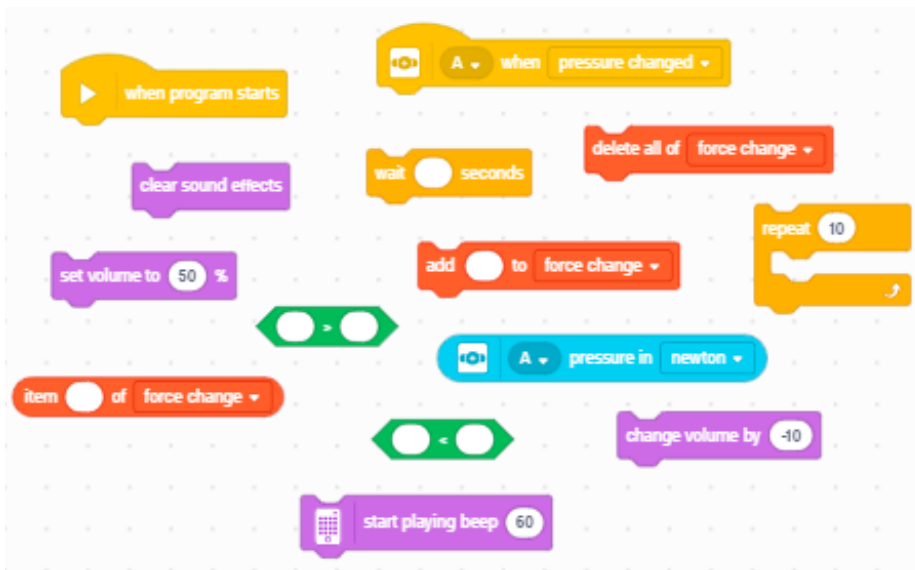
Think about using these code blocks.

EXTRA CHALLENGE

Noisy Scale

Have your scale play a beep noise when pressure changes on force sensor. Increase the volume as the weight measured increases and decrease the volume if weight measured decreases.

(HINTS)

Think about using these code blocks.

How did you do?

What did you do well? Is there anything you could've done better?

You did it!